

July 23, 2001

DRAFT

SCIENCE ADVISORY BOARD  
Executive Committee Meeting  
U.S. Environmental Protection Agency  
26 Martin Luther King Cincinnati, OH  
July 17-18, 2001

**ACTIONS**

**ACTION 1:** The Executive Committee approved the report on "New Approaches to Stakeholder Involvement", subject to final edits and approval by the vettors, Drs. Utell and Greer.

**ACTION 2:** The EC approved the report on Scientific and Technological Achievement Awards (STAA).

**ACTION 3:** The Executive Committee approved transmittal of a letter from Dr. Glaze to the Governor briefly describing its reaction to the GAO report. (Attachment R).

**INSTRUCTIONS**

**INSTRUCTION 1:** The Chair instructed the Staff to set up a conference call in order to act on the RSAC's "Peer Review Program: Implementation at the Environmental Protection Agency's -- An SAB Review".

**INSTRUCTION 2:** The Chair asked Dr. Inyang to meet with Drs. Kasperson and ?? and himself to flesh out the proposed EEC self-initiated project (#02-15) on energy and climate.

**INSTRUCTION 3:** The Chair will appoint a group to develop a proposal for how the SAB should/could address biotechnology.

**INSTRUCTION 4:** The Chair appointed Drs. Hopke, Lippmann, Morgan, and Schnoor to develop a more targeted description of a project that the SAB might undertake in the area of Cumulative Risk.

**INSTRUCTION 5:** The Chair was asked to met regularly with the Agency leadership to impress upon them the importance of the SAB having the chance to "look at the right projects."

**INSTRUCTION 6:** The Chair instructed the Staff to generate another draft proposal for SAB projects for FY02, building on the Strawman proposal distributed today and the accompanying conversation. They should consider balance and resource allocation

**INSTRUCTION 7:** The Chair will discuss the proposed set of projects with the Deputy Administrator.

**INSTRUCTION 8:** The Chair instructed SAB Staff to obtain a list of the recent activities of the SAP and a calendar of their future planned activities.

**INSTRUCTION 9:**

1. The Chair should appoint a Policies and Procedures Subcommittee of the Executive Committee to look into that matter of appropriate/inappropriate interaction among Panelists, the Agency, and the public.
2. This Subcommittee should consist of roughly three EC members and one Designated Federal Official (DFO). Other Staff and Members can/should be involved as sources of information/ideas.
3. The Subcommittee's Charge should include responding adequately to the GAO report. (See below for further details.)

**INSTRUCTION 10:** The Chair asked the Social Science Workgroup to put their discussion in the form of a succinct report.

**INSTRUCTION 11:** The EC encouraged the staff to continue the SAB Lecture Series: "Science & the Human side of Environmental Protection"

**INSTRUCTION 12:** The EC instructed the Staff to work out the mechanics of gathering, recording, and posting information about NARROWCAST candidates (item 2.5), as soon as possible.

**INSTRUCTION 13:** The Chair asked the EC Members to email to Dr. Barnes (with a copy to Dr. Glaze) any further comments and suggestions that they might have.

**INSTRUCTION 14:** The Staff should prepare a summary of the discussion of the GAO for distribution to the EC as soon as possible. A commitment was made to send them out by Thursday morning, July 18.

### **CONSENSUSES**

**CONSENSUS 1:** The EC should look into the matter, develop a course of action, and, as needed, have the OIG comment on the SAB plans.

**CONSENSUS 2:**The EC should

- a. Send an immediate letter to the Administrator, making the following points:
  - 1) We take the GAO report seriously.
  - 2) We affirm that the Board's advice has been good and balanced.
  - 3) We are taking action to improve the process in line with the recommendations in the GAO report.
  - 4) We are concerned about the possible impact that this could have on SAB productivity.
- b. Institute immediate, interim procedures, along the lines outlined by the Staff.
- c. Establish a Policy and Procedures Subcommittee that will analyze these matters in greater detail and monitor steps taken to address them.

## **ANNOUNCEMENTS**

**ANNOUNCEMENT 1:** The Chair announced that he will develop a strawman Charge for the Policy and Procedures Subcommittee, that will be composed of three EC members and a DFO. EC members will be asked to respond to the strawman and volunteer to serve on the subcommittee, if they are so moved.

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**I. Attendees**

**MEMBERS**

Dr. William Glaze, Chair  
Dr. Henry Anderson  
Dr. Linda Greer  
Dr. Philip Hopke  
Dr. Hilary Inyang (by phone from Brazil during much of the meeting)  
Dr. Janet Johnson  
Dr. Roger Kasperson  
Dr. Morton Lippmann  
Dr. M. Granger Morgan  
Dr. William Smith  
Dr. Rhodes Trussell  
Dr. Mark Utell  
Dr. Terry Young

**LIAISON PARTICIPANTS**

Dr., Thomas Thies, EEC (7/18 only)  
Dr. Gerald Schnoor, Chair, Board of Scientific Counselors (BOSC)

**DFO**

Dr. Donald Barnes, Designated Federal Officer

Others present at the meeting are listed on the sign-in sheets (Attachment A).

Members of the SAB Staff joining by phone for portions of the meeting included the following:

Dr. Jack Kooyoomjian  
Ms. Kathleen White

**II. Agenda (Attachment B)**

The meeting basically followed the agenda. The minutes are presented in a more logical way, rather than a more chronological way.

During the afternoon of the second day, the EC Members spent an hour walking throughout the building to observe the posters prepared by Agency scientists and to discuss their the work with them.

### **III. Introduction**

#### **A. Welcome**

Dr. William Glaze, Chair of the SAB Executive Committee (EC), introduced Dr. Tim Oppelt, Director of the National Risk Management Laboratory (NMRL), and Senior Office of Research and Development (ORD) Executive in Cincinnati. Dr. Oppelt welcomed everyone to the Andrew Breidenbach Laboratory and reviewed the history of the EPA research presence in Cincinnati, its changing role, and its transition from a primarily engineering focus to one that now includes elements of health, biological, physical, ecological, and social sciences, as well as engineering. He distributed a packet of material and contained additional information (Attachment C).

#### **B. Dr. Glaze's Introduction**

Dr. Glaze expressed his appreciation to Dr. Oppelt and all of the EPA Staff who were making the EC's visit so informative and enjoyable.

Dr. Glaze recognized members of the EC whose terms on the EC were expiring and, according to EC rotational policy, would be rotating off of the Committee. He presented plaques of appreciation to the following:

Dr. Henry Anderson -- out-going Chair of the Integrated Human Exposure Committee (IHEC)

Dr. Hilary Inyang -- out-going Chair of the Environmental Engineering Committee (EEC), *in absentia*

Dr. Granger Morgan -- out-going EC member at-large

Dr. Robert Stavins -- outgoing Chair of the Environmental Economics Advisory Committee (EEAC), *in absentia*

He also noted the fact this would be Dr. Lippmann's last EC meeting, marking the end of an unprecedented era of continuous service on the EC Committee, dating back the better part of two decades. Dr. Barnes rose to display the photo of Dr. Lippmann that will be hung in the SAB Conference Room in the Ariel Rios building in Washington to commemorating Dr. Lippmann's service as Interim Chair of the EC in 1999-2000.

Dr. Glaze commented on the importance of the SAB and the issues that it addresses; e.g., dioxin and arsenic, in the course of its 59 meetings (including 30 conference calls) this year. The SAB is "a force" that needs to be targeted on the most important issues. One of the tasks of this meeting is to chart a course of priorities for FY02.

At the same time, the report from the General Accounting Office (GAO) released on July 16 identifies a number of "limitations" in certain support functions of the Board that represent opportunities for further improvements in SAB operations. This attention gives the SAB the chance and challenge to both institute positive changes, correct misconceptions, and "tell its story" in such a way that the SAB will be both improved and appreciated for the benefits it brings to the Agency and the country.

The Chair previewed the agenda, highlighting the poster session that will occur in the afternoon. as a way for the EC members to better understand and appreciate the work of EPA scientists

Dr. Glaze summarized his recent meeting with Ms. Linda Fisher, Deputy EPA Administrator (Attachment D). He characterized it as open, friendly, and positive. Among the points made at the meeting were the following:

1. Dr. Glaze pointed out that the SAB has similarities and difference with the National Research Council. Among the differences is the fact that the SAB generally has greater continuity on an issue through its structure than does the NRC.
2. Ms. Fisher encouraged the SAB to identify areas/issues of science that should have greater attention within the Agency. She pointed out that the "width of the SAB's slice" on an issue is appropriate greater than the Agency's slice of same issue, the latter often being constrained by factors (e.g., legal) that artificially limit the Agency's view. This broader view should be encouraged as a means of thinking creatively about problems/opportunities.
3. Ms. Fisher looks forward to meeting with the EC regularly to provide a top management perspective and to engage in open dialogue with the SAB.
4. The Governor's priorities are not yet set although they are shaping up in a general way.
5. They discussed a number of important topic areas; e.g., global change, the Precautionary Principle, performance-based accountability, and biotechnology.

In the ensuing discussion, the following points were made:

1. The SAB should encourage publication of EPA scientific output in the peer-reviewed literature.
2. The Administrator should meet with the EC at least once a year.
3. More work is needed in biotechnology, where there are many environmental issues, such as gene transfer in the wild. The multi-Agency mandate approach seems well-designed to have important issues fall through the cracks.
4. The SAB should be pursuing more aggressively its interactions with the Office of International Affairs (OIA) in the context of international issues.
5. To be effective, self-initiated projects have to have a client within the Agency. Otherwise, lots of resources are expended in generating yet-another report that goes on the shelf.
6. The SAB needs "better press and a higher profile". It appears that the work of the Board is unreasonably diminished vis a vis some the efforts of some other groups.
7. As the SAB develops its agenda, Members should continually ask whether there are alternative structures of the Board that would more effectively and efficiently accomplish that agenda.
8. Additional integrating issues that need attention include
  - a. Carbon separation and sequestration

## b. Distributed generation

Dr. Glaze concluded his introduction by noting the importance of the SAB's developing an appropriate agenda of high-impact activities that consider both what the SAB does and how it does it; e.g., self-initiated activities.

He concluded by referring to the minutes of the last meeting (Attachment E )

## C. Dr. Barnes's Update

In his summary of recent activities at the Agency, Dr. Barnes touched on a number of topics:

1. Agency personnel changes (Attachment F)
2. Administrator priorities (Attachment G)
3. A report on a briefing for Congressional staff on the SAB's dioxin review (Attachment H)
4. Dr. Bernard Weiss, a participant in the Integrated Risk Project (IRP), has published a paper (NeuroToxicology 46 (2001) 1-15) (Attachment I) that captures the essence of the work done by the IRP Health Effects Subcommittee. The paper completes the planned disposition of the work of the Subcommittee.
5. Emoluments Clause (Attachment J)

The issue of SAB Members and the Emoluments Clause of the US Constitution came up at the EC Retreat in April. Since then, SAB Staff have raised the issue with the General Services Administration (who determined that this is not an issue of sufficient concern to other Federal agencies that they will be pursue it) and within Agency (a recommendation for Congressional action has been developed and is being pursued.)

## IV. Reports from Committees

The EC was referred to the Committee Activity Summaries document (Attachment K) for overviews of what the Committees had been doing and planned to do.

### A. Council on Clean Air Act Compliance Analysis (Council)

In the absence of Dr. Trudy Cameron (Council Chair), Dr. Angela Nugent (Council DFO) updated the EC on the recent activities of the group. She noted that the Section 812 Study was being used widely and cited as a path-breaking piece of work. A point of current discussion is whether/how/when to include a series of energy scenarios to extend the analysis in policy-important ways..

### B. Clean Air Act Scientific Advisory Committee (CASAC)

Dr. Phil Hopke (CASAC Chair) updated the EC on the recent activities of the Committee. Dr. Inyang asked about aspects of the particulate matter (PM) activities. Dr. Hopke broached the possibility of EEC liaison participation in these CASAC efforts.

C. Drinking Water Committee (DWC)

Dr. Rhodes Trussell (DWC Chair) updated the EC on the recent activities of the Committee.

D. Ecological Processes and Effects Committee (EPEC)

Dr. Terry Young (EPEC Chair) updated the EC on the recent activities of the Committee. She highlighted the recent review of the Agency STAR Watersheds program that involved the EPEC members in a 3-day meeting with STAR grant researchers.

E. Environmental Economics Advisory Committee (EEAC)

In the absence of Dr. Robert Stavins (EEAC Chair) and Mr. Tom Miller (EEAC DFO) who was in Washington preparing for an arsenic benefits meeting, the written report stood in their stead.

F. Environmental Engineering Committee (EEC)

Dr. Hilary Inyang (EEC Chair) updated the EC on the recent activities of the Committee. He highlighted the EEC plans to apply the Risk Reduction Options approach to the case of contaminated sediments.

G. Environmental Health Committee (EHC)

Dr. Mark Utell (EHC Chair) updated the EC on the recent activities of the Committee.

H. Integrated Human Exposure Committee (IHEC)

Dr. Henry Anderson (IHEC Chair) updated the EC on the recent activities of the Committee.

I. Radiation Advisory Committee (RAC)

Dr. Janet Johnson (RAC Chair) updated the EC on the recent activities of the Committee.

J. Research Strategies Advisory Committee (RSAC)

In the absence of the RSAC Chair, Dr. Raymond Loehr, Dr. William Smith, a member of RSAC, updated the EC on the recent activities of the Committee.

1. Consideration of "Implementation of the Environmental Protection Agency's Peer Review Program: An SAB Review"

This report was distributed at the meeting, providing insufficient time for careful consideration. Some members recommended narrowing the title of the report, since it addresses only three case studies, not the entire program

**INSTRUCTION 1:** The Chair instructed the Staff to set up a conference call in order to act on the RSAC's "Peer Review Program: Implementation at the Environmental Protection Agency's -- An SAB Review"



## K. Special Subcommittees

### 1. Arsenic Rule Benefits Review Panel

Mr. Tom Miller, ARBRP DFO, described the upcoming meeting July 19-20 and how it related to the review of the health effects of arsenic (being conducted by the National Research Council) and the review of the costs of arsenic control in drinking water (being conducted by the National Drinking Water Advisory Committee). The EC will have to meet on the Panel's report in August in order to meet Gov. Whitman's request for a final SAB report by the end of August.

### 2. New Approaches to Stakeholder Involvement

Dr. Morgan introduced the report which stems from a series of EC workshops conducted over the past two years.

Lead Discussant, Dr. Utell, endorsed the report and presented his comments (Attachment L).

Associate Discussant, Dr. Greer, also endorsed the report in the course of presenting her comments. She raised some concerns about recommendations #7: the use of jury-like panels. After further discussion, she agreed that her concern could be fixed by a clarification of the language. It was agreed that the Executive Summary should contain a summary table of recommendations.

**ACTION 1:** The Executive Committee approved the report on "New Approaches to Stakeholder Involvement", subject to final edits and approval by the vetters, Drs. Utell and Greer.

### 3. Scientific and Technological Achievement Awards (STAA) Subcommittee

In the absence of Subcommittee Chair, Dr. C. Herb Ward, Dr. Smith, STAA member, introduced the report. Because of privacy issues, the version of their report seen by the EC did not contain the names of the recommended awardees.

Among the comments made during the discussion were the following:

- a. The Agency was missing an opportunity to publicize its "good science and good scientists"
- b. The EC should follow through on its recommendation from last year that the top STAA winners be invited to give their papers to the SAB EC and that the second level winners be invited to make poster presentations at an EC meeting.
- c. Alternative mechanisms for STAA review
  - 1) Can any STAA-type committee have sufficient expertise to judge appropriately?
  - 2) BOSC members could be valuable participants in further STAA reviews.
  - 3) Consider having SAB committee review papers within their area of expertise. The committee Members will get a better sense of science at the Agency.
  - 4) Consider sending the papers out independent peer reviewers.

**ACTION 2:** The EC approved the report on Scientific and Technological Achievement Awards (STAA).

V. SAB Projects and Planning for FY02

A. Cumulative Risk Consultation

Dr. Steve Knott of the Risk Assessment Forum (RAF), together with members of the Technical Panel, joined Dr. Mike Callahan in Region 6 on the phone to discuss the Agency's Cumulative Risk Framework document with the EC. He introduced the framework as an organizing principle for later development into guidelines and for helping to define research directions. He noted that the Framework had been reviewed by the RAF in January, by representatives of other Federal agencies in May, and by some state officials later in May. A public peer involvement workshop is slated for August 20.

Among the points made by EC members in the ensuing discussion were the following:

1. The discussion in the paper is rather abstract. It would help to cite assessments that illustrate some, if not all, of the points. The document should be concrete enough to convey what is meant, but flexible enough that it will not constrain further progress.
2. It is still not clear how Framework would suggest that the Agency integrate what may be incommensurables; e.g., cancer and non-cancer effects, health effects and ecological effects, extrapolated (theoretical) risks based on animal studies and actual risks based on human epidemiology, and risks based upon basically incomparable data sets; e.g., "apples and oranges data".
3. Without greater specificity, the value of the paper is not clear.
4. It is not clear whether ecological risks are meant to be included or not. There are examples where the Agency has attempted to integrate these risks with the health risks; cf., watershed risk assessments.
5. With all that is going on in "making cumulative risk real"; cf, the Agency's response to the Food Quality Protection Act and the National Air Toxics Assessment (NATA) program, the value-added of this generalized paper on cumulative risk issues is not clear.
6. Dr. Callahan mentioned that the Agency is grapple with some thought issues in the context of cumulative risk; e.g.,
  - a) What should the Agency do?
  - b) When should they do it?
  - c) What will -- and will not -- such an analysis tell you.
  - d) Should we include items as far-flung as "risk to property values"?
7. The document appropriately identifies "vulnerability assessment" as an important issue, but the paper is lacking many of the important reference in this area, including a recently held conference in Sweden. (Dr. Kasperson will forward some of the important papers in this areas.)

8. An alternative strategy to integrating all risks, as the current draft seems to imply, would be to identify to few most important risks (i.e., "the drivers") and deal with them.
9. When considering what risks to include, avoid simply picking the ones for which you have data; cf., the "looking under the lamppost" approach.
10. The approach suggests an inductive method; combine all of the risks you can find. Another alternative would be an deductive approach in which the population in question would be examined to determine its most important risks and than tracking back to determine what environmental components play the biggest role in manifesting those risks.
11. It is not clear how the different models should fit together; cf., used of proprietary models, such as CALENDEX and LIFELINE.
12. An overall comment was the Agency is, in fact, doing cumulative risk; cf., implementation of FQPA. The document should at least acknowledge these efforts and make some comment about the relative strengthens and weaknesses of these approaches. In light of the evolving practice, it is not clear what function is served by a conceptual document such as the Framework.
13. What is the SAB role in this important effort? Perhaps the Board should be taking a more hands-on advisory role, similar to the rolls of the Council and the Section 812 study.
14. This issue will be considered in the context of the FY02 project requests. There was some EC enthusiasm to get involved with the larger issue, but not the Framework as currently presented.

#### B. Review Submissions and Make Plans

Dr. Fowle distributed a package of materials (Attachment M) containing the following:

1. Dr. Glaze's guidance
2. SAB criteria for selecting projects
3. Analyses of the project submissions
4. Summary table of FY 02 project requests
5. A spreadsheet of all of the requests (both those from the Agency and self-initiated), received to date, for SAB projects for FY02.
6. To the degree that they are available, brief "project sheet descriptions of these requests.

Among the points made during the discussion were the following:

1. Projects with an International aspect:
  - a. It appears that conflict can occur between EPA and the State Department when an international environmental issue arises. Perhaps the SAB can help in these cases.

- b. Some members understand that the State Department has leadership in the mechanics of international interactions; the EPA could have leadership on the substance of those interactions.
  - c. There are relatively few projects with explicit international components. This situation is in contrast to Sweden, for example, where 50% of their environmental issues are addressed in an international context.
  - d. Ms. Fisher seemed to be aware of the need for international considerations. Dr. Glaze can pursue this matter with her.
- 2. Particulate Matter (PM)
  - a. It would be helpful to catalogue all of the PM projects and show how they are interrelated to one another.
  - b. As noted above, EEC has an interest in PM issues. Someone like Barry Dellinger would be a good liaison from EEC to CASAC.
- 3. Ecological issues
  - a. To date, the Agency has not requested any specific project on ecology.
  - b. There are at least three important "carryover" projects that should be included in the list of SAB activities for FY02:
    - 1) Clean Sediments (i.e., turbidity): Project #01-11
    - 2) Landscape Status & Change: Project #??
    - 3) Ecological Report Card: Completing the self-initiate report
- 4. Residual Risk
  - a. Residual Risk of Emissions from Secondary Lead Smelters will be coming back to the SAB for a final review of the entire assessment including ecological components. This review is important since it is the bellwether of the rest of the 100+ Residual Risk analyses that will be conducted..
  - b. This review is linked to other projects; e.g,
    - 1) The Air Toxics Research Strategy: #02-33
    - 2) Self-initiated project on risk assessment: #02-45
- 5. PM Research Centers
 

It is possible that the SAB will be asked to review the PM Centers program. SAB review should make sense for a variety of reasons, among them are the following:

  - 1) These centers deal with an issue that has received a lot of SAB attention.
  - 2) These centers account for about 20% of the entire STAR program budget.
  - 3) The PM issue is a principal driver in the Section 812 study.
  - 4) A review of the centers would provide information about the impact of science on decision-making in a critical area.
  - 5) Such a review could be conducted jointly with BOSC.

6) Such a review could be coupled with a review of the Multi-year Plan for PM: #02-39.

6. Further development

a. Energy/climate

- 1) Consider doing #15 (EEC-self) and #45 (Multi-year plan)
- 2) The EEC should provide some more detail about the four topics listed on the project sheet for #15.

**INSTRUCTION 2:** The Chair asked Dr. Inyang to meet with Drs. Kasperson and ?? and himself to flesh out the proposed EEC self-initiated project (#02-15) on energy and climate.

- 3) There may be others that should be coming

b. Radiation Risk

Dr. Johnson will discuss with Staff the prospect of broadening #02-35 to include risks other than radiation.

c. Particulate matter

Dr. Hopke recommended consideration of conducting the CASAC review of particulate monitoring (#02-7) and the EEC self-initiated project on Sources and Characterization of Fine Particular Air Pollution (#02-30) as an EC subcommittee.

d. Biotechnology

- 1) SAB was briefed on this matter two years ago, but there has been no followup
- 2) It appeared then that there was the potential for things to fall through the cracks of the multi-Agency plan.
- 3) There are many elements to the topic; e.g.,
  - a) Genetically modified organisms (GMOs)
  - b) "Gene jumping" in the environment
  - c) Remedial use of engineering organisms.
  - d) Monitoring
  - e) Toxicogenomics
  - f) Risk assessment techniques
- 4) Perhaps this topic is best suited to be a subject for
  - a) A Consultation
  - b) A "scoping study"
    - i. This study would result in a prospectus for a major study.
    - ii. This activity should take at least two meetings and involve a wide range of interested and affected parties.

- c) A workshop
- 5) Strategically, the SAB might do best by first addressing only one facet of the problem; e.g., bioremediation, and letting our activity grow out from there.
- 6) The Board is not well-constituted with the most appropriate experts right now to deal with the issue.

**INSTRUCTION 3:** The Chair will appoint a group to develop a proposal for how the SAB should/could address biotechnology.

e. Cumulative Risk

- 1) The project on Cumulative Risk (#02-21) and Air Toxics Research Strategy (#02-33) actually merge into the self-initiated project on Research Needs for RA (#02-45).
- 2) As defined, the Cum Risk project could be very broad, including factors such as environmental justice.
- 3) This is an important issue. The 1980s RA/RM paradigm is losing its credibility in the face of more complex questions and needs to be replaced.
- 4) Perhaps we're talking about having the NRC develop a new paradigm. What is the appropriate role for the SAB?
- 5) It may make sense to deal with the issue incrementally, starting from the Callahan proposal.

**INSTRUCTION 4:** The Chair appointed Drs. Hopke, Lippmann, Morgan, and Schnoor to develop a more targeted description of a project that the SAB might undertake in the area of Cumulative Risk.

- 7. "Are we getting the right projects?"
  - a. Some members expressed concern that the SAB was not getting the number and variety of project requests that we have received in the past. In some areas (e.g., ecology and nutrient impacts), there have been no requests at all.
  - b. There is some concern -- and anecdotal evidence -- that some programs may be "forum shopping".
  - c. The practice of Chairs meeting with AAs has been applied unevenly, with uneven results. These contacts need to be supplemented by contacts between the SAB Chair and the top leaders of the Agency.

**INSTRUCTION 5:** The Chair was asked to met regularly with the Agency leadership to impress upon them the importance of the SAB having the chance to "look at the right projects."

**INSTRUCTION 6:** The Chair instructed the Staff to generate another draft proposal for SAB projects for FY02, building on the Strawman proposal distributed today and the accompanying conversation. They should consider balance and resource allocation

**INSTRUCTION 7:** The Chair will discuss the proposed set of projects with the Deputy Administrator.

## VI. Reports on FACA Activities

### A. Board of Scientific Counselors (BOSC)

Dr. Jerry Schnoor, BOSC Chair, summarized recent BOSC activities. he looks forward to cooperative interactions and joint activities with the SAB.

### B. Children's Health Protection Advisory Committee (CHPAC)

Dr. Joel Bender was unable to attend the meeting.

### C. Scientific Advisory Panel (SAP)

Mr. Larry Dorsey was unable to join the meeting by phone.

**INSTRUCTION 8:** The Chair instructed SAB Staff to obtain a list of the recent activities of the SAP and a calendar of their future planned activities.

## VII. Board Business and Concerns

### A. Discussion of COI and Panel Operations

Dr. Barnes summarized some of the interactions between the Office of the Science Advisory Board (OSAB) and the Office of the Inspector General (OIG) (Attachment N). Two of the activities - a) cooperative project with RSAC and b) checking the completeness of the OSAB plans for responding to the recommendations in the report from the General Accounting Office (GAO) – were received as information at this point. The third activity – studying problems associated with post-meeting interactions involving SAB panelists, the Agency and the public – was the focus of this discussion.

Among the points made during the discussion were the following:

1. This matter is more appropriately addressed by the EC, *per se*, rather than the OIG who, product would be a report that the EC would have deal with in any event.

The EC would be faced with having to react to a set of OIG recommendations which might be difficult to avoid, even if they were not really on-target. If the OIG is involved at all, it would be to review what the EC does.

**CONSENSUS 1:** The EC should look into the matter, develop a course of action, and, as needed, have the OIG comment on the SAB plans.

2. The SAB should look at the National Research Council (NRC) process/culture and determine what portions of that system the Board wants to adopt; i.e., “benchmark” against the NRC.
3. In addressing the issue, the EC should collect and analyze a series of case studies. This analysis would provide fodder for the development of guidance/policy that would apply to future SAB activities. The activity would be an exercise in policy/guidance development, not an investigation, *per se*.
4. The following “cases” would provide input to the Subcommittee:
  - a. Behavior of panelists in the Dioxin Reassessment Review Subcommittee (DRRS).
  - b. Behavior of Agency personnel in the EPEC review of the STAR Watersheds program.
  - c. Behavior of the public in contacting panelists before and after the meeting.

**INSTRUCTION 9:**

1. The Chair should appoint a Policies and Procedures Subcommittee of the Executive Committee to look into that matter of appropriate/inappropriate interaction among Panelists, the Agency, and the public.
  2. This Subcommittee should consist of roughly three EC members and one Designated Federal Official (DFO). Other Staff and Members can/should be involved as sources of information/ideas.
  3. The Subcommittee’s Charge should include responding adequately to the GAO report. (See below for further details.)
- 
5. New members need to receive clear orientation and instructions; e.g.,
    - a. The role of panelists vis a vis the Chair and the DFO in the report preparation process.
    - b. The manner and record of handling inputs for and comments on draft reports.
    - c. The appeal procedure, in case a panelist feels that he/she has not had an adequate hearing.



## B. Report on Workshop on "Understanding Public Values and Attitudes Related to Ecological Risk Management"

Dr. Baruch Fischhoff was unable to join the call. Instead, Dr. Milton Russell, co-Chair of the Workshop Planning Committee, discussed the workshop. He noted that the concept of the Workshop stemmed from the Values Subcommittee of the Integrated Risk Project (IRP) which made two findings and one recommendation:

Finding 1: Ecological goals are based on public values

Finding 2: Achieving those goals involves trade-offs.

Recommendation: That EPA recognize the reality of these Findings and support research on various valuation methods.

Dr. Cathy Kling also joined the call who participated in the Workshop as a liaison participant from the Environmental Economics Advisory Committee.

As a part of this effort, SAB and the Agency worked together to plan and support a Workshop on research proposals for determining how public values were formed and reflected in a particular case: the restoration of the Tampa Bay Estuary. Four individuals were commissioned to develop proposals from their disciplinary perspectives on how they would approach this problems:

1. Dr. Terry Daniel, Dept of Psychology, University of Arizona
2. Dr. Robin Gregory, Decision Research, North Vancouver, BC
3. Dr. Willet Kempton, College of Marine Studies, University of Delaware
4. Dr. James Opaluch, Dept of Environmental and Natural Resource Economics, University of Rhode Island

Over 100 people from across the country attended the meeting, including invitees from Tampa Bay and the State of Florida.

Dr. Fischhoff submitted a "sense of the Meeting Summary" (Attachment O). Among the key messages were the following:

1. The approaches from the four disciplines overlapped; i.e., there was no great divide.
2. It is critical to avoid biased estimates in such exercises.
3. Formal processes can yield useful valuation insights.
4. These approaches are more productive, feasible, and useful in local/regional controversial issues.

In general, the Workshop was a quite positive effort and included the following insights:

1. Presenters, panelists, and the audience were well-engaged.
2. By nearly any measure, it was a successful effort.
3. Some of the research plans may be pursued.
4. Social sciences can play an important role in understanding the issues are dynamic, providing good insights and correcting some incorrect "conventional wisdom".
5. Valuation reflects a fundamental belief system and demands trade-offs.
6. There needs to be followup to capitalize on the inter-Agency interest and excitement generated by the Workshop.

A report stemming from the Workshop will appear soon on the Web. In addition, there are discussions about how/whether/where to get the information on the Workshop published; e.g., in *Environmental Science & Technology*.

#### C. The Role of Social Sciences in SAB activities

Dr. Kasperson reported on the discussions of the Social Sciences Workgroup that was appointed by Dr. Glaze after the last meeting. The group consisted of Dr. Kasperson (Chair); Dr. Cameron, and Dr. Morgan, with Dr. Nugent supplying support. He discussed five areas:

##### 1. Social Sciences and the SAB

Dr. Nugent had prepared an analysis of the reports conducted by the SAB over the past five years (Attachment P), identifying projects that had consciously involved social scientists.

The group considered two options for expanding the involvement of social scientists in SAB activities: Option A--establishing a Social Sciences Committee or Option B--involving social scientists in the current list of committees. The group favored the latter approach and suggested adding two (non-economic) social scientists to any committee that would be willing to expand their view. Dr. Loehr (RSAC Chair) has already indicated that he would be willing to add one.

##### 2. Social Sciences products

These included the following:

- a. Focused reports; e.g., the EEC report on "Diffusion of New ideas"
- b. The New Approach to Stakeholders workshops and report

There is a need to followup on these successes:

##### 3. SAB Lecture Series: "Science & the Human side of Environmental Protection"

There have been nine speakers in the series to date. (Again, see Attachment P). SAB resource commitments to the effort have been modest, particularly in light of the impact of the series on the rest of the Agency.

The group suggests that the SAB consider expanding this activity from seminars into workshops, with a targeted audience addressing a targeted problem.

##### 4. Develop a list of social scientists who might be appropriate for SAB service.

The list would identify individuals who are appropriate for SB Consultanship, based upon a set of criteria; e.g., :

- a. Accomplishments in the field
- b. The breadth of social sciences exhibited
- c. The applicability of their skills to the problems facing the Agency and the SAB.
- d. Demonstrated effective service in a committee setting.

##### 5. Explicitly highlight social sciences in SAB Charge negotiations

The intent would be to ask for every project "Is there a social sciences component here that the SAB could fruitfully address?"

Dr. Utell noted that CASAC reviews often deal with data on biological responses. Left unanswered, often times, is "When is a biological response an adverse effect?" The answer to this question has a social sciences component to it. The key is to identify these issues at the time that the Charge is being negotiated.

**INSTRUCTION 10:** The Chair asked the Social Science Workgroup to put their discussion in the form of a succinct report.

**INSTRUCTION 11:** The EC encouraged the staff to continue the SAB Lecture Series: "Science & the Human side of Environmental Protection"

D. GAO report and the SAB response

1. Copies of the GAO report were distributed to the EC members (Attachment Q).
2. Don distributed a copy of the statement ("GAO report on the Science Advisory Board ") that has been posted on the SAB Website and updated the EC on the steps that had been and were being introduced to address the recommendations in the GAO report.
3. Among the points made in the ensuing discussion were the following:
  - a. There is a distinction between
    - 1) Conflict-of-interest (COI);
      - a) Narrowly drawn in a legal sense; i.e., financial holdings of an individual panelist that could be affected "in a clear and predictable" manner by the output of the panel.
      - b) Widely drawn to include appearances of conflict-of-interest that might occur in the mind of an interested member of the public.
    - 2) Bias; i.e., the inherent "point of view" that an individual brings to an issue, based upon his/her knowledge and experience.
  - b. COI
    - 1) Legal COI is addressed, government-wide by the Office of Government Ethics (OGE), through a standard form: OGE-450, on which the panelist records a "Confidential Financial Statement". The form is somewhat limited in the information that it gathers.
    - 2) The Counselor to the Administrator is working with a group that includes the SAB Staff Director and appropriate participants from the Office of the General Counsel (OGC) to explore ways of obtaining additional information. There is a precedence for such wider information collection, through experience at FDA and NIH, for example. To obtain permission to obtain

additional information will likely take Administrator-level involvement (“Got it”) and several months.

- 3) The OGE-450 asks for current information upon which to make a COI judgment. In contrast, the NRC is concerned about such matters over the past five years.

c. Bias

- 1) Bias is addressed by
  - a) “Balance of bias” (BOB) on the panel
  - b) Sharing of information among the panelists
- 2) The Staff Director, in conjunction with the DFO, roughly assesses bias, as described in the GAO report.
- 3) There should be some mechanism instituted that allowed panelists to share what they believed their biases might be.

d. Benchmark with NRC: Obtain questionnaires and forms from NRC.

e. The “disclosure process”

- 1) This is a misnomer; it should be called “background information”.
- 2) The current practice is:
  - a) Conducted in an uneven manner.
  - b) Time-consuming

f. There was some discomfort expressed about some of the 6 elements listed (a-f) in the document.

- 1) Some aspects of putting information on prospective panelists the SAB Website were unclear and/or troublesome.
- 2) Some folks were uneasy about “stating why they were qualified to be on the panel and why they could render ‘unbiased’ advice.”

g. Several members spoke to the importance of having an immediate response (via a letter to the Administrator), followed by a longer-term exercise in which the EC consciously addresses the GAO concerns and “adaptively manages” the elements of the process over time in order to reach an optimal point.

4. The Chair summarized the consensus of the group.

**CONSENSUS 2:**The EC should

- a. Send an immediate letter to the Administrator, making the following points:
  - 1) We take the GAO report seriously.
  - 2) We affirm that the Board’s advice has been good and balanced.
  - 3) We are taking action to improve the process in line with the recommendations in the GAO report.
  - 4) We are concerned about the possible impact that this could have on SAB productivity.
- b. Institute immediate, interim procedures, along the lines outlined by the Staff.

- c. Establish a Policy and Procedures Subcommittee that will analyze these matters in greater detail and monitor steps taken to address them.

5. **ACTION 3**: The Executive Committee approved transmittal of a letter from Dr. Glaze to the Governor briefly describing its reaction to the GAO report. (Attachment R).

6. Don distributed the more detailed “SAB Response to GAO Report”

7. Continued discussion yielded the following points:

- a. There are three “information sharing” efforts that are needed and that are not totally overlapping:
  - 1) Information for the Staff when making COI determinations; e.g., sources of funding.
  - 2) Information for fellow panelists so that they understand one another better.
  - 3) Information that is shared with the public before (e.g., on the Web) or at the meeting.
- b. Benchmark with the NRC forms and procedures.
- c. A key step for item f.1)a) is getting permission to do it. Therefore, it is important to press ahead in a timely manner with the c.2)b) above.
- d. It is imperative to find effective and efficient ways of gathering this information; e.g.,
  - 1) Having a teleconference call with everyone in the NARROWCAST so that Staff is not burdened with making 20 calls to say the same thing to different people.
  - 2) The magnitude of the support from various sources is as important as the simple existence of support.
  - 3) We may be best served by a written record of these interactions with (potential) panelists. At the same time, we need to be sensitive to possibly competing implications of the Privacy Act and the Freedom of Information Act.
- e. The information that goes on the Web needs to be fair standard. It can be generalized from some of the more detailed information obtained via forms and conversations. One possibility is to gather the information orally and summarize it in a table format.
- f. We need to decide how far back in time our concerns go; e.g., activities over the past five years?

**INSTRUCTION 12**: The EC instructed the Staff to work out the mechanics of gathering, recording, and posting information about NARROWCAST candidates (item 2.5), as soon as possible.

g. Waivers

- 1) By virtue of SAB membership, each Member is exempted from COI as it relates to his/her principal employer.
- 2) This exemption does not cover SAB Consultants or Members' stock holdings issued by their principal employer.
- 3) It is often possible that waivers can be granted if it is objectively determined that the advice from an individual outweighs a COI that might exist.
- 4) Any such waiver provisions should be thoroughly documented and their existence convey to the public.
- 5) "Waivers" should be explicitly included in the 90-Day Schedule.
- 6) The "waivers issue" should be examined in the longer term by the P&P Subcommittee.
- 7) The Chair expressed the view that we should take a conservative view about when a waiver is needed; i.e., if in doubt, get the waive.

h. As we move into the longer term considerations, we should try to get a better idea of what the public really wants to know, rather than simply developing systems to gather information that we believe the public wants – or should want – to know.

**INSTRUCTION 13:** The Chair asked the EC Members to email to Dr. Barnes (with a copy to Dr. Glaze) any further comments and suggestions that they might have.

**INSTRUCTION 14:** The Staff should prepare a summary of the discussion of the GAO for distribution to the EC as soon as possible. A commitment was made to send them out by Thursday morning, July 18.

**ANNOUNCEMENT 1:** The Chair announced that he will develop a strawman Charge for the Policy and Procedures Subcommittee, that will be composed of three EC members and a DFO. EC members will be asked to respond to the strawman and volunteer to serve on the subcommittee, if they are so moved.

## **IX. Adjournment**

The meeting was adjourned on Wednesday, July 18 at 12:00 PM.

Respectfully Submitted,

Concurred,

Donald G. Barnes, Ph.D.  
Designated Federal Official

Dr. William Glaze  
Chair, EC

ATTACHMENTS TO THE MINUTES OF THE MEETING OF THE  
EXECUTIVE COMMITTEE OF THE SCIENCE ADVISORY BOARD  
July 17 & 18, 2001

Attachment A -- Sign In Sheets  
Attachment B -- Agenda  
Attachment C -- EPA Cincinnati Lab materials  
Attachment D -- Summary of Glaze/Fisher Meeting  
Attachment E -- Minutes of May 15, 2001 EC meeting  
Attachment F -- Summary of Agency personnel appointments  
Attachment G -- Good possibilities for Governor Whitman's priorities  
Attachment H -- Summary of meeting with Congressional Staff regarding Dioxin  
Attachment I -- Neurotoxicology report - Dr. Bernard Weiss  
Attachment J -- Update on Emoluments Clause  
Attachment K -- Committee Activity Summaries  
Attachment L -- Stakeholder Involvement  
Attachment M -- Fowle's package of materials on FY02 projects  
Attachment N -- Discussion of COI and Panel Operations  
Attachment O -- Dr. Fischhoff's summary of SAB/EPA Tampa Bay and Public Values Workshop  
Attachment P -- Dr. Angela Nugent's analysis of reports over the last 5 years  
Attachment Q -- General Accounting Office (GAO) Report on the SAB  
Attachment R -- EC letter to Governor Whitman in regards to the GAO report